

AMENDMENTS TO THE CLAIMS

(IN FORMAT COMPLIANT WITH THE REVISED 37 CFR 1.121)

Please cancel claims 2 and 7 without prejudice. Please add new claims 21 and 22.

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1. (~~CURRENTLY AMENDED~~) An apparatus comprising:  
an interface connectable to a network; and  
a node configured (i) as an add/drop device for said  
network, (ii) to transport one or more a plurality of packets  
5 having a plurality of protocols within a frame, comprising one or  
more nodes configured to add and/or on said network through said  
interface and (iii) to drop at least one of said one or more  
A packets from said frame.

2. (~~CANCELED~~) The apparatus according to claim 1,  
wherein said one or more nodes comprise add/drop multiplexers  
(ADMs).

3. (~~CURRENTLY AMENDED~~) The apparatus according to claim  
1, wherein said ~~one or more nodes~~ node comprises a SONET/SDH  
add/drop multiplexer ~~multiplexers~~ (ADMs).

4. (ORIGINAL) The apparatus according to claim 1, wherein said frame is further configured to optimize a bandwidth of said apparatus.

5. (~~CURRENTLY AMENDED~~) The apparatus according to claim 1, wherein said ~~apparatus~~ network comprises a fiber optic network.

6. (~~CURRENTLY AMENDED~~) The apparatus according to claim 1, wherein said ~~apparatus~~ network comprises one of a Synchronous Optical Network frame and a Synchronous Digital Hierarchy a SONET/SDH fiber optic network.

7. (~~CANCELED~~) The apparatus according to claim 1, wherein said packet further comprise a header configured to identify a data type of said one or more packets.

8. (~~CURRENTLY AMENDED~~) The apparatus according to claim 1, wherein said ~~header~~ frame comprises (i) a packet envelope to hold said packets and (ii) a label having frame-specific information specifying that at least two of said protocols are used  
5 in a packet envelope.

9. (~~CURRENTLY AMENDED~~) The apparatus according to claim 1, wherein said ~~one or more~~ packets are selected from a group

consisting of (i) Internet Protocol IP packets, (ii)  
Packet-Over-SONET/SDH packets ~~(POS)~~, (iii) Point-to-Point Protocol  
5 PPP packets, (iv) Asynchronous Transfer Mode ATM cells, (v)  
G.702-based Plesiochronous Digital Hierarchy PDH ~~(T1/T3)~~ packets,  
and (vi) Frame Relay packets, ~~and any other byte stream.~~

10. (~~CURRENTLY~~ AMENDED) The apparatus according to claim  
1, wherein said ~~apparatus comprises a media network~~ is selected  
from ~~the a~~ group consisting of ~~ring and a point-to-point networks~~  
network and ~~non-SONET/SDH configurations such as point-to-point WDM~~  
5 ~~networks~~ a Wavelength Division Multiplexing network.

11. (~~CURRENTLY~~ AMENDED) The apparatus according to claim  
1, wherein ~~each of said nodes~~ said node is further configured to  
determine a reusability of each of said ~~one or more~~ packets within  
said frame received at said interface.

12. (~~CURRENTLY~~ AMENDED) The apparatus according to claim  
11, wherein ~~each of said nodes~~ said node is further configured to  
determine ~~a~~ said reusability of each of said ~~one or more~~ packets in  
response to a reuse bit.

13. (~~CURRENTLY~~ AMENDED) The apparatus according to claim  
~~±~~ 12, wherein each of said ~~one or more~~ packets comprise a payload

header configured to store said reuse bit ~~packet-specific~~  
information.

14. (CURRENTLY AMENDED) The apparatus according to claim  
1, wherein ~~each of said one or more nodes~~ said node is selected  
from the group of (i) terminal multiplexers and (ii) SONET/SDH  
add/drop multiplexes, ~~ADMs and~~ (iii) data-aware SONET/SDH ~~ADMs~~  
add/drop multiplexers and (iv) digital cross-connects ~~(DCCs)~~.

15. (CURRENTLY AMENDED) An apparatus comprising:  
a plurality of one or more nodes configured to interface  
to a network, wherein each of said ~~one or more nodes~~ is configured  
to ~~interface one or more data types~~ generate a frame on said  
5 network comprising a plurality of packets having a plurality of  
different protocol received through a plurality of interfaces.

16. (CURRENTLY AMENDED) A method for transporting ~~one or~~  
~~more~~ a plurality of packets each comprising at least one of a  
plurality of data types having a plurality of protocols within a  
frame, comprising the steps of:

5 (A) adding at least one new packet having one of said  
protocols to of said one or more packets in said frame; and

(B) dropping at least one of said ~~one or more packets~~ in  
said frame.

17. (~~CURRENTLY~~ AMENDED) The method according to claim 16, comprising the step of:

~~(C)~~ identifying a data type of a payload in each of said ~~one or more~~ packets from a packet header in each of said packets.

18. (~~CURRENTLY~~ AMENDED) The method according to claim 16, wherein said ~~one or more~~ new packet is selected from a group consisting of (i) Internet Protocol IP packets, (ii) Packet-Over-SONET/SDH (POS) packets, (iii) Point-to-Point Protocol PPP packets, (iv) Asynchronous Transfer Mode ATM cells, (v) G.702-based Plesiochronous Digital Hierarchy PDH (T1/T3) packets, SRP packets, and (vi) Frame Relay packets, or byte-stream.

19. (~~CURRENTLY~~ AMENDED) The method according to claim 17, further comprising the step of:

~~(D)~~ determining a reusability of each of said ~~one or more~~ packets.

20. (~~CURRENTLY~~ AMENDED) The method according to claim 19, wherein ~~step (D)~~ said determining is further ~~configured~~ in response to a reuse bit in a header in each of said packets.

21. (~~NEW~~) The apparatus according to claim 15, wherein said nodes are further configured as add/drop multiplexers for said network.

22. (~~NEW~~) The apparatus according to claim 15, wherein said network comprises one of a Synchronous Optical Network frame and a Synchronous Digital Hierarchy fiber optic network.

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